



~ Wang *continued* ~

**Output:** For each of Wang's  $T$  queries, on its own line, print out the set of mutual friend-groups. Each mutual friend group will take the format of " $\{p_1, p_2, \dots, p_\ell\}$ ", where  $p_1$  is the lexicographically smallest name among the  $\ell$  members of the group,  $p_2$  is the second smallest, and so on. Mutual friend groups should be separated by a single comma followed by a single space, and should be listed first by decreasing set size, and then by lexicographical order in the case of ties.

**Sample input:**

```
1
15 19
A B C D E F G H I J K L M N O
B J
J E
E K
K B
D I
I L
L M
M H
H D
A G
G C
C F
F D
D A
J H
M N
L O
D C
H N
```

**Sample output:**

```
{A, C, D, F, G, H, I, L, M}, {B, E, J, K}, {N}, {O}
```